

AMENDMENTS TO THE CLAIMS

Please amend Claims 1, 4, 5, 9, 13, 16, 17 and 20, cancel Claims 8 and 12, and add new Claims 27 and 28, such that the status of the claims is as follows:

1. [Currently Amended] A slide assembly for use with a molding or casting system comprising:
  - a base removably mountable to a first stationary-die block half;
  - a slide engagable with the base such that the slide is movable relative to the base in a first direction and a second direction, wherein the first direction is opposite of the second direction, the slide comprising:
    - a faceplate having a core pattern attached to the slide; and
    - a slot having a first slide flat surface and extending centrally through the slide at an angle oblique to the plane subsuming the rails;
    - a coupler for connecting the slide to a hydraulic actuation mechanism, wherein the coupler is positioned opposite the faceplate; and
  - a cam lever mountable to a second moveable-die block half and removably insertable into the slide during a molding or casting cycle, the cam lever comprising:
    - a head for securing to the movable die block; and
    - a tail having a second-first cam flat surface extending from the head at the oblique angle for insertion into the slot;

wherein the cam lever is adapted to move the slide relative to the base through cam action and wherein the first cam flat surface of the tail flushly abuts ~~contacts~~ the ~~second-first~~ slide flat surface of the slot to retain position of the slide relative to the first stationary-die block half during an injection phase of the molding or casting cycle.
2. [Canceled]
3. [Canceled]

4. [Currently Amended] The slide assembly of claim 4-2, wherein the oblique angle between the head and the ~~second~~ first cam flat surface of the tail is greater than one-hundred-and-thirty degrees and less than one-hundred-and-sixty degrees as referenced from a front surface of the head.

5. [Currently Amended] The slide assembly of claim 27[[1]] further comprising a first circuit and a second circuit positioned in the first and second proximity switch bores of ~~coupled to~~ the base, and a magnet positioned in the magnet bore of the slide, wherein the first circuit is adapted to provide signals to limit the movement of the slide relative to the base in the first direction, and wherein the second circuit is adapted to provide signals to limit the movement of the slide relative to the base in the second direction as the magnet crosses the first and second proximity switch bores, respectively.

6. [Canceled]

7. [Original] The slide assembly of claim 1, wherein the cam lever extends through the base when the cam lever is inserted through the slide for preventing the slide moving relative to the base.

8. [Canceled]

9. [Currently Amended] A slide assembly for use with a molding or casting system comprising:  
a base adapted to be mounted to a first die block half, the base comprising:  
a pair of inward facing tracks; and  
a pair of lead bores positioned on one of the inward facing tracks for receiving  
switches of a proximity switch system;  
a slide having:  
a pair of outward facing rails adapted to engage the tracks of the base for allowing  
the slide to move in a first direction and a second direction relative to the  
base;

a first slide flat surface extending centrally through the slide at an angle oblique to a plane in which the slide moves relative to the base;

a second slide flat surface extending centrally through the slide parallel to the first slide flat surface to form a slide bore;

a magnet bore positioned on one of the outward facing rails such that the magnet bore is positionable between the lead bores of the base; and

a coupler for connecting the slide with a hydraulic actuator;

a face plate attached to the slide opposite the coupler for receiving a core pattern; and

a cam lever for mounting to a movable, second die half, the cam lever comprising:

a head for fastening to the movable die half and a tail having:

a first flat face positioned at an angle to the head and configured for abutting the first slide flat surface[.]; and

a second flat face spaced parallel from the first flat face and configured for abutting the second slide flat surface; and

wherein the cam lever is removably insertable into the slide bore for moving the slide relative to the base through cam action;

wherein the cam lever is adapted to move the slide in the first direction relative to the base as the cam lever is inserted into the slide when the movable, second die half is brought into contact with the first die half such that the core pattern is inserted into a core between the first die block half and the second die block half, and the first flat face of the tail of the cam lever engages the first slide flat surface to hold[[s]] the slide fixed against the first die half; and

wherein the second flat face of the cam lever is adapted to engage the second slide flat surface to move the slide in the second direction relative to the base as the cam lever is removed from the slide when the movable, second die half is pulled away from the first die half thereby removing the core pattern from the core.

10. [Canceled]

11. [Canceled]

12. [Canceled]

13. [Currently Amended] The slide assembly of claim 9 further comprising a first circuit and a second circuit positioned in the pair of lead bores of ~~coupled to~~ the base, and a magnet positioned in the magnet bore of the slide, wherein the first circuit is adapted to provide signals to limit the movement of the slide relative to the base in the first direction, and wherein the second circuit is adapted to provide signals to limit the movement of the slide relative to the base in the second direction as the magnet crosses the one of the pair of lead bores.

14. [Original] The slide assembly of claim 9, wherein the tail of the cam lever extends through the base when the cam lever is inserted through the slide for preventing the slide moving relative to the base.

15. [Canceled]

16. [Currently Amended] A slide assembly for use with a molding or casting system comprising:  
a base adapted to be mounted to a first die block half and having first and second tracks comprising grooves in the base;  
a slide having first and second rails engagable with the first and second tracks of the base such that the slide is entrained within the base and movable relative to the base to insert and remove a core pin from a core within the molding or casting system;  
a cam lever adapted to be connected to a second die block half and removably insertable into the slide for moving the slide relative to the base through cam action and having a

flat surface for immobilizing the slide during a molding or casting cycle; and  
a circuit coupled to the either the first or second track of the base and adapted to provide  
signals to limit the movement of the slide relative to the base.

17. [Currently Amended] The slide assembly of claim 16 further comprising a hydraulic coupling connected to the slide opposite the core pin for connection with a hydraulic actuator in order to retaining position of the slide relative to the first die block half through hydraulic power.

18. [Original] The slide assembly of claim 16, wherein the tail of the cam lever extends through the base when the cam lever is inserted through the slide for preventing the slide moving relative to the base.

19. [Canceled]

20. [Currently Amended] The slide assembly of claim 16, wherein the cam lever comprises a head and a tail positioned at an angle to the head, wherein the angle between the head and the tail is greater than one-hundred-and-thirty degrees and less than one-hundred-and-sixty degrees as referenced from a front surface of the head.

21. [Previously Presented] The slide assembly of claim 1 wherein the tail of the cam lever comprises a quadrangular cross section.

22. [Previously Presented] The slide assembly of claim 1 wherein the slide includes a removable faceplate adapted for receiving various mold patterns for insertion into the core.

23. [Previously Presented] The slide assembly of claim 22 wherein the first flat surface of the tail leverages the faceplate against the stationary die block half to immobilize the slide during the

molding or casting process.

24. [Previously Presented] The slide assembly of claim 1 wherein the oblique angle between the head and the flat face of the tail is approximately one-hundred-and-fifty-five degrees.

25. [Previously Presented] The slide assembly of claim 9 wherein the tail of the cam lever comprises a quadrangular cross section to provide increased surface area for holding the slide fixed against the stationary, first die half.

26. [Previously Presented] The slide assembly of claim 16 wherein the flat surface of the cam lever retains the slide by pushing flush against the slide to pin the slide against the first die block half.

27. [New] The slide assembly of claim 1 and further comprising:

first and second proximity switch bores positioned on the base; and

a magnet bore positioned on the slide;

wherein the magnet bore is positioned on the slide to translate between the first and second proximity switch bores.

28. [New] The slide assembly of claim 16 wherein the circuit further comprises:

first and second lead bores positioned on one of the first or second tracks;

first and second proximity switches positioned in the first and second lead bores;

a magnet bore positioned in one of the first or second rails of the slide; and

a magnet positioned on the magnet bore such that the magnet is positionable between the first and second lead bores of the base.